

# Python for Machine Learning

Duration  
2 Days

Delivery Methods  
VILT, Private Group



Master the skills to use machine learning in your day-to-day work with this Python course. Create algorithms to predict classes, continuous values, and more.

This course is designed for the student who already knows some Python and is ready to dive deeper into using those Python skills for Machine Learning. With a focus on SciKit Learn, you'll learn all aspects of Machine Learning ranging from a variety of regression types (Linear / Lasso / Ridge), Elastic Net, K Nearest Neighbors and Means Clustering, Hierarchical Clustering, DBSCAN, PCA, and Model Deployment.

This course includes 6-months access to the full course content in on-demand format to support post-class reference and review.

## Who Should Attend

Experienced Python developers looking to understand a wide variety of machine learning algorithms, including supervised and unsupervised learning algorithms.

## Course Objectives

- You will learn how to use data science and machine learning with Python.
- Understand Machine Learning from top to bottom.
- Learn NumPy for numerical processing with Python.
- Conduct feature engineering on real world case studies.
- Learn Pandas for data manipulation with Python.
- Create supervised machine learning algorithms to predict classes.
- Create regression machine learning algorithms for predicting continuous values.
- Construct a modern portfolio of machine learning resume projects.
- Learn how to use Scikit-learn to apply powerful machine learning algorithms.
- Get set-up quickly with the Anaconda data science stack environment.
- Understand the full product workflow for the machine learning lifecycle.
- Explore how to deploy your machine learning models as interactive APIs.

## Agenda

- Python
- Jupyter notebooks
- Numpy
- Pandas
- Matplotlib
- Machine Learning concepts
- Supervised vs Unsupervised Learning
- Types of Machine Learning – Classification vs Regression
- Evaluation
- Machine Learning Methods – All in Theory and Practice
- Linear Regression
- Logistic Regression
- K Nearest Neighbors
- Support Vector Machine
- Decision Trees
- Unsupervised Learning Methods
- Feature Engineering and Data Preparation